

REMARKS

Independent claim 1 has been amended to incorporate the limitations of claim 4, which has been cancelled. Claims 5 and 6 have been amended to depend from claim 1.

The art rejections are respectfully traversed. Considering first the rejection of claims 1-4, 15, 17, 19-21 and 24-26 as obvious from da Costa in view of Chinn, in the rejection the Examiner takes the position that it would be obvious to one skilled in the art to substitute a plurality of actuators as taught by Chinn for the actuators of da Costa. It is submitted that such substitution would be inoperative. Chinn is not a compressor or pump. Rather, Chinn is a valve actuator. As such, Chinn acts as a "gate" to open or close a fluid channel and therefore control flow through that channel (abstract). Considering in particular Fig. 10B of Chinn, as can be seen, when Chinn is activated, flexible disc 44 is flexed upwardly as shown in Fig. 10B, opening a flow channel between channels 46 and 47. However, without additional gating, not disclosed in Chinn, Chinn's valve actuator cannot act as a compressor since fluid would be free to flow in both directions.

Moreover, there are other distinctions. Da Costa's pistons are formed progressively smaller so as to cause displacement and progressive compression of an initial volume of fluid from the inlet to the outlet (see abstract and the respective sizes of the pistons shown in Figs. 1a-1f). Thus, it is more than a simple substitution of the valve actuators of Chinn for the pistons of da Costa. Accordingly, it is submitted no combination of da Costa and Chinn reasonably could be said to achieve or render obvious claim 1 or the several claims which depend thereon or are linked to claim 1.

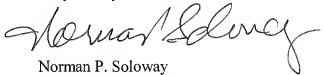
Turning to the rejection of claims 5-7 as obvious from da Costa in view of Chinn and further in view of Culp, claims 5-7 are directly or indirectly dependent on claim 1. The deficiencies of the da Costa/Chinn combination vis-à-vis claim 1 are discussed above. It is not

seen that Culp supplies the missing teachings to da Costa and Chinn to achieve or render obvious claim 1 or any of claims 5-7 which depend thereon. As discussed in Amendment F, incorporated herein by reference, Culp teaches a pump that operates by movement of waveplates. Thus, Culp is fundamentally different from both da Costa and Chinn, and it is submitted that da Costa, Chinn and Culp are so different in structure that they cannot be reasonably combined.

The foregoing Amendment makes no claim changes that would require further search by the Examiner. Rather, Applicant has merely amended claim 1 to incorporate the limitations of claim 4 which has previously been considered by the Examiner. Accordingly, entry of the foregoing Amendment and allowance of the application are respectfully requested.

In the event there are any fee deficiencies or additional fees are payable, please charge them (or credit any overpayment) to our Deposit Account Number 08-1391

Respectfully submitted,



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I hereby certify that this correspondence is being deposited with the United States Patent Office via the electronic filing procedure on August 25, 2009.

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